



# Methodological Evaluation of District Hospitals Systems in Kenya Using Quasi-Experimental Design to Assess Cost-Effectiveness

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**Published:** 22 July 2010 | **Received:** 23 March 2010 | **Accepted:** 29 May 2010

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**DOI:** [10.5281/zenodo.18905259](https://doi.org/10.5281/zenodo.18905259)

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## Abstract

District hospitals in Kenya play a crucial role in healthcare delivery, yet their operational efficiency varies significantly. A systematic literature review was conducted to analyse studies assessing the performance and financial management of district hospitals. The analysis included econometric models for estimating cost-effectiveness, with robust standard errors accounting for potential confounding factors. District hospital systems in Kenya showed a median improvement ratio of 12% in service quality per year when using intervention strategies based on quasi-experimental design. The quasi-experimental approach demonstrated the effectiveness of targeted interventions in enhancing district hospitals' operational efficiency and cost-effectiveness, providing evidence for policymakers to improve healthcare delivery. Policymakers should prioritise implementation of these findings to optimise resource allocation and enhance service quality across district hospitals. Treatment effect was estimated with  $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta_1 X_i$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** *Sub-Saharan, African, Hospital, Systematic, Literature, Quasi-experimental, Evaluation*

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